

# Work Order ID 85139

**\*85139\***

Page 1

June-04-12 1:26:04 PM

Item ID: D350-636-011

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Skidtube LH

Stop

**\*NS2\***

Start Date: 04/06/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 18/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/06/04

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2750	F								
D3492	C								

100

0.00

**\*100\***

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-011 CHG 006

DAS 16  
12-7-24  
JB

MLJ 12-7-24

**B85139**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 85139

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Item ID: D350-636-011

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Skidtube LH

Start Date: 04/06/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 18/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***  
Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00

**\*110\***

Skidtubes

Skidtubes

Skidtubes

Memo

0.00

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting

5- Drill only two fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B.  
\*\*\*SECOND SIDE\*\*\*

8-Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail C to 0.500" (8 holes per side)

9-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".

10-Open up holes of Detail A to 0.297" (total of 2 holes per side)

BE 12/06/25

BE 12/06/25

BE 12/06/28

BE 12/06/25

BE 12/06/28

BB 12/06/28

BE 12/06/28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Work Order ID 85139

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Item ID: D350-636-011

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Skidtube LH

Start Date: 04/06/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 18/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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11-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left from bending as per QSI 004

A/R Aluminum Rod batch: *M122130*

*BE 12/06/26*

12-Grind welds flush as per Dwg D2750

*BE 12/06/26*

120

QC10- Inspect visual per QSI004- ground welds

0.00

**\*120\***

QC

Memo

0.00

Quality Control

*8/12/04/28*

130

QC5- Inspect part completeness to step on W/O

0.00

**\*130\***

QC

Memo

0.00

Quality Control

*8/12/04/28*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Item ID: D350-636-011

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Skidtube LH

Start Date: 04/06/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 18/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_

Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*140*</b>									
HandFinish	Memo	0.00							
Hand Finishing									
150	QC7-Inspect Chemical Conversion Coat	0.00							
<b>*150*</b>									
QC	Memo	0.00							
Quality Control									

1 7/6 12-6-27

① SAD 12-07-03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries



**Work Order ID 85139****\*85139\***

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Item ID: D350-636-011

Accept

**\*N9000040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Skidtube LH

Start Date: 04/06/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 18/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

0.00

**\*160\***

Skidtubes

Skidtubes

Skidtubes

**Memo**

0.00

1-Open up holes of Detail C and ground handling to 0.625" (total of 8 holes per side)  
as per dwg D2750.

2-Open up holes of Detail B to 0.750" (total of 4 holes per side)  
as per dwg D2750.

3- Open float hole to 0.500" (4 per side)

4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750  
(welding instructions on sheet 8)

5-Deburr and blow out all chips from inside of tube

6- Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R Sikaflex-291

batch:

exp. date:

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004  
(welding instructions on sheet 8)

A/R Aluminum Rod

batch:

9- At section AJ-AJ drill out x-bolt spacer to 0.404"

10-Grind welds flush as per Dwg D2750

38 12/07/03

> CF 12-7-3

> BE 12-07-04

DP 12-7-9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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# Work Order ID 85139

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Item ID: D350-636-011

Accept

**\*N9000040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Skidtube LH

Start Date: 04/06/2012 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 18/06/2012 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run Start <b>*NR1*</b>
	QC:	Date:	SPC (Y/N):	Date:	Stop <b>*NR2*</b>

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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11-Spot face ground handling holes section (total of 4 places per side) as per  
dwg D2750

12-Deburr holes

170 QC10- Inspect visual per QSI004- ground welds 0.00

**\*170\***

QC

Memo

Quality Control

180 QC5- Inspect part completeness to step on W/O 0.00

**\*180\***

QC

Memo

Quality Control

*Handwritten:* 12-29

*Handwritten:* 8/26/10

*Handwritten:* 8/26/10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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**NOTE:** Date & initial all entries

# Work Order ID 85139

**\*85139\***

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Item ID: D350-636-011

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Skidtube LH

Stop **\*NS2\***

Start Date: 04/06/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 18/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	-----------	------------	------------	---------------	-------------

190

Pressure Wash per QSI005 4.3

0.00

**\*190\***

HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

1 NG 12-7-10

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

**\*200\***

Powdercoat

Memo

0.00

Powder Coating

START TIME: 10:30

OVEN TEMPERATURE: 320°F

FINISH TIME: 11:00

1X  $\phi$  M-F 12/07/10

210

QC3- Inspect Part Finish

0.00

**\*210\***

QC

Memo

0.00

Quality Control

Inspect for foreign object per QSI 024

1611 & JU 12/07/10

M121841

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*85139\***

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Item ID: D350-636-011

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**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: Skidtube LH

Start Date: 04/06/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 18/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run Start	<b>*NR1*</b>
	QC:	Date:	SPC (Y/N):	Date:	Stop	<b>*NR2*</b>

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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220

0.00

**\*220\***

HandFinishing

HandFinish

Memo

0.00

Hand Finishing

✓ 1- Install inserts as per Dwg D2750

1 hr of 10 to 14

230

0.00

**\*230\***

HandFinishing

HandFinish

Memo

0.00

Hand Finishing

✓ 1-Inspect for Foreign Objects

✓ 2-Spray inside of tube with "LPS-3" batch: \_\_\_\_\_

✓ 3-Install blade fitting D3488-041, wearshoes and ground handling hardware as

per dwg D2750

SIKA FLEX 241

BATCH: 1112113 6

EXP DATE: 11/03

✓ 4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube

A/R 55-o'ring lube batch: 11103-18

✓ 5-Coat all exposed fasteners with "LPS Procyon" batch: 11104 596

1 hr of 10 to 14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Work Order ID 85139

**\*85139\***

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Item ID: D350-636-011

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Skidtube LH

Start Date: 04/06/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 18/06/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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240 QC5- Inspect part completeness to step on W/O

0.00

**\*240\***

QC

Memo

0.00

Quality Control

250 Pick Kit

0.00

**\*250\***

Packaging

Memo

0.00

Packaging

260 QC4- 100% Inspect kits for completeness

0.00

**\*260\***

QC

Memo

0.00

Quality Control

\*\*\*\*\*ensure antiseize is on AN8C21A bolts\*\*\*\*\*



17/9/26

(T)

12/07/24 JB

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Item ID: D350-636-011

Revision ID:

Item Name: Skidtube LH

Start Date: 04/06/2012 Start Qty: 1.00

Required Date: 18/06/2012 Req'd Qty: 1.00

Reference:

Approvals: Process Plan: Date: QC: Date:

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Stop **\*NS2\***

Cust Item ID:

Customer:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours
270	Packaging	0.00
<b>*270*</b>		
Packaging	Memo	0.00
Packaging	Package as per PPP D350-636-011	
280	QC21- Final Inspection - Work Order Release	0.00
<b>*280*</b>		
QC	Memo	0.00
Quality Control		

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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0.00

0.00

0.00

0.00

REV I

1X

SP  
12-7-26

12/1/30

me

12-07-27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 85139

**\*85139\***

Parent Item: D350-636-011

**\*D350-636-011\***

Parent Item Name: Skidtube LH

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

## Comments:

IPP Rev:I 02.09.25 Rearranged procedure steps KJ  
 IPP Rev:J 06-03-23 As per Rev D JLM  
 IPP Rev:K 06-07.13 As per dsi9343 EC  
 IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verf:EC  
 IPP Rev:M 08-04-22 update steps 4, 13 DD verified by:EC  
 IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec  
 IPP Rev:O 09-02-06 apply antiseize on AN8C21A bolts as per PAR09-010  
 DD verf:EC IPP Rev:P 10.06.22 revise  
 seq110 DD verf:EC IPP Rev:Q 10.10.01 as per IIN revH  
 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D3492-1		Manufactured	No			230	Each	257.0000	8	8			
<b>*D3492-1*</b>									**			12/07/11	
Plug													

Location	Loc Qty	Loc Code
FP002	242	
69531	8	
74444	2	
76235	4	
83259	228	
FP-A	15	
83098	15	

D3492-3		Manufactured	No			230	Each	167.0000	8	8			
<b>*D3492-3*</b>									**			12/04/11	
Plug													

Location	Loc Qty	Loc Code
FP-A	167	
81967	5	
83099	40	
83529	122	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 2

Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

\*85139\*

\*D350-636-011\*

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1611-010

Purchased

No

230

Each

188.0000

8

8

\*NAS1611-010\*

O-RING

\*\*

yl 12/03/11

## Location

## Loc Qty

## Loc Code

FP001

188

1122151

110915

14

vg

117460

8

118077

1

118612

3

119438

47

121259

2

121415

4

121584

59

121723

50

NAS1149D0863J

Purchased

No

250

Each

251.0000

2

2

\*NAS1149D0863.J\*

WASHER

\*\*

JB 12/07/24

## Location

## Loc Qty

## Loc Code

ST298

251

118078

34

119307

17

120308

100

121556

100

120308

D2744

Manufactured

No

110

Each

35.0000

1

1

\*D2744\*

Cap

\*\*

BE 12/06/26

## Location

## Loc Qty

## Loc Code

LG002

35

62715

1

78900

3

83412

31

June-04-12 1:26:12 PM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

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Page 3

Work Order ID: 85139

**\*85139\***

Parent Item: D350-636-011

**\*D350-636-011\***

Parent Item Name: Skidtube LH

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2600-3-BENT

Manufactured No

110

Each

29 0000

1

1

**\*D2600-3-BENT\***

Extrusion Bent

\*\*

*BE 12/06/25*

Location

Loc Qty

Loc Code

LG

29

66875

7

73253

1

75021

1

75022

1

75023

1

81330

4

83305

1

83442

13

D2743

Manufactured No

160

Each

296.0000

8

8

**\*D2743\***

Crossbolt Spacer

\*\*

*BE 12/06/25 07 04*

Location

Loc Qty

Loc Code

LG

222

81965

55

83262

167

LG001

74

67766

4

68251

3

73403

64

74445

1

79517

2

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Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 4

Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

**\*85139\***

**\*D350-636-011\***

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2739

Manufactured No

160 Each

13.0000

1

1

**\*D2739\***

350 I Beam

\*\*

①

CF 12-7-3

*B85486*

Location

Loc Qty

Loc Code

LG

13

72155

1

81508

1

83447

4

83448

5

83548

2

D3490-3

Manufactured No

160 Each

46.0000

4

4

**\*D3490-3\***

Cross Bolt Spacer

\*\*

*B/E 12/07/01*

Location

Loc Qty

Loc Code

LG001

46

83313

46

*4*

D3490-1

Manufactured No

160 Each

45.0000

4

4

**\*D3490-1\***

Cross Bolt Spacer

\*\*

*B/E 12/07/04*

Location

Loc Qty

Loc Code

LG

2

81976

2

LG001

43

62450

2

74875

4

77042

3

83269

34

*4*

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Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 5

Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

\*85139\*

\*D350-636-011\*

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

Purchased

No

220

Each

781.0000

38

38

\*AI S4-1032-225\*

Insert

\*\*

52

12/07/11

## Location

## Loc Qty

## Loc Code

ST281

758

71122290

x38

108696

146

110768

62

118386

55

118966

68

121269

427

ST282

23

120410

10

120451

13

D3793-3

Manufactured

No

230

Each

28.0000

1

1

\*D3793-3\*

Wearshoe

\*\*

52

12/07/11

## Location

## Loc Qty

## Loc Code

FP001

28

83394

16

83901

12

AN8C35A

Purchased

No

230

Each

68.0000

1

1

\*AN8C35A\*

BOLT

\*\*

52

12/05/11

## Location

## Loc Qty

## Loc Code

FP002

67

115960

1

118286

16

121275

50

ST346

1

114442

0

115188

0

115960

1

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 6

Work Order ID: 85139

**\*85139\***

Parent Item: D350-636-011

**\*D350-636-011\***

Parent Item Name: Skidtube LH

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3793-1

Manufactured No

230

Each

28.0000

1

1

**\*D3793-1\***

Wearshoe

\*\*

21 12/07/11

Location

Loc Qty

Loc Code

FP001

28

82171

2

83393

13

83903

13

X1

D3488-041

Manufactured No

230

Each

9.0000

1

1

**\*D3488-041\***

Blade Fitting Assembly, LH

\*\*

21 12/07/11

Location

Loc Qty

Loc Code

FP002

9

61689

1

82271

8

1385807

X1

D3794-3

Manufactured No

230

Each

23.0000

1

1

**\*D3794-3\***

Gasket

\*\*

21 12/07/11

Location

Loc Qty

Loc Code

FP

21

83396

21

FP002

2

74530

2

X1

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

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Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

\*85139\*

\*D350-636-011\*

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

AN6C44A

Purchased

No

230

Each

86.0000

4

4

**\*AN6C44A\***

BOLT

\*\*

HL n10716

Location

Loc Qty

Loc Code

FG

2

103964

2

ST343

84

121013

11

121167

13

121440

50

121689

10

YU

MS21083C8

Purchased

No

230

Each

81.0000

1

1

**\*MS21083C8\***

NUT

\*\*

HL n10716

Location

Loc Qty

Loc Code

304

75

121185

29

121349

46

FP002

1

115884

1

ST303

4

115884

0

118077

1

119309

2

119638

1

ST304

1

121524

1

YU

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 8

Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

\*85139\*

\*D350-636-011\*

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3536-25

Manufactured No

230

Each

28.0000

1 1

\*D3536-25\*

Gasket

\*\*

12/07/11

Location

Loc Qty

Loc Code

FP

28

83391

12

xl

83900

16

D3631-1

Manufactured No

230

Each

347.0000

8 8

\*D3631-1\*

Washer

\*\*

12/07/11

Location

Loc Qty

Loc Code

FG

332

81874

2

83588

330

xl

ST072

15

68062

2

75548

13

D3791-1

Manufactured No

230

Each

17.0000

1 1

\*D3791-1\*

Wearplate

\*\*

12/07/11

Location

Loc Qty

Loc Code

FP002

17

62239

2

83392

15

xl

AN960C10L

NAS1149C0332

Purchased

No

230

Each

0.0000

38 38

\*AN960C10L \* ✓

washer

11/22/063

\*\*

(x38) 12/07/11

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Page 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

\*85139\*

\*D350-636-011\*

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

D2745

Manufactured No

230

Each

122.0000

8

8

\*D2745\*

Bushing

\*\*

12/07/11

Location

Loc Qty

Loc Code

FP

6

79518

6

FP001

116

69529

1

76142

1

83260

114

28

AN3C5A

Purchased

No

230

Each

1,302.000

34

34

\*AN3C5A\*

Bolt

\*\*

12/07/11

Location

Loc Qty

Loc Code

FP001

7

115835

7

ST350

1295

116419

28

117343

13

117764

7

117872

2

119749

23

120423

28

121068

12

121255

500

121444

182

121708

500

238

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

\*85139\*

\*D350-636-011\*

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3537-1 Manufactured No

230

Each

83.0000

3

3

\*D3537-1\*

Wearpad

\*\*

M 11/07/11

## Location

## Loc Qty

## Loc Code

FG

10

79833

10

FP002

73

69817

5

81360

14

81362

19

83254

1

83255

3

84091

31

B 93256

✓3

NAS1149C0832R

Purchased

No

230

Each

257 0000

1

1

\*NAS1149C0832R\*

WASHER

\*\*

M 11/07/11

## Location

## Loc Qty

## Loc Code

ST297

257

114915

257

✓1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

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Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

\*85139\*

\*D350-636-011\*

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C6A

Purchased

No

230

Each

451.0000

4

4

**\*AN3C6A\***

BOLT

\*\*

u

12/03/12

## Location

## Loc Qty

## Loc Code

FP001

1

111982

1

ST351

450

111982

2

116419

23

116549

2

116704

12

117619

10

117688

1

117872

5

118422

13

119449

21

120423

3

120693

158

121682

200

x

NAS1611-013

Purchased

No

230

Each

361.0000

8

8

**\*NAS1611-013\***

O-RING

\*\*

u

12/03/12

## Location

## Loc Qty

## Loc Code

FP001

361

116582

5

117291

2

117887

53

119623

36

121584

15

121825

200

121826

50

x

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 12

Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

\*85139\*

\*D350-636-011\*

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-25

Manufactured No

230

Each

34.0000

1

1

\*D3535-25\*

Wearshoe

\*\*

11/07/11

## Location

## Loc Qty

## Loc Code

FP001

34

62233

1

81357

1

82156

2

83387

17

83899

13

XL

D3794-1

Manufactured No

230

Each

26.0000

1

1

\*D3794-1\*

Gasket

\*\*

11/07/11

## Location

## Loc Qty

## Loc Code

FP

6

82167

6

FP002

20

83395

20

Y1

MS21043-6

Purchased No

230

Each

618.0000

4

4

\*MS21043-6\*

NUT

\*\*

11/07/10

## Location

## Loc Qty

## Loc Code

FG

20

103693

20

ST301

598

117887

2

118384

96

120308

500

Y4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 13

Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

\*85139\*

\*D350-636-011\*

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

D3493-1

Manufactured No

250

Each

127.0000

2

2

\*\*

\*D3493-1\*

Washer

Location

Loc Qty

Loc Code

ST050

127

77573

1

82023

26

83097

100

83097

MS21083C8

Purchased

No

250

Each

81.0000

2

2

\*\*

\*MS21083C8\*

NUT

Location

Loc Qty

Loc Code

304

75

121185

29

121349

46

FP002

1

115884

1

ST303

4

115884

0

118077

1

119309

2

119638

1

ST304

1

121524

1

AN8C21A

Purchased

No

250

Each

57.0000

2

2

\*\*

\*AN8C21A\*

BOLT

Location

Loc Qty

Loc Code

ST343

57

118758

3

121167

4

121275

50

121275

June-04-12 1:26:13 PM

Shop Packet Print

Page 13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

June-04-12 1:26:13 PM

Page 14

Work Order ID: 85139

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

**\*85139\***

**\*D350-636-011\***

Start Date: 04/06/2012

Required Date: 18/06/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1515H3L

Purchased

No

230

Each

146.0000

4

4

**\*NAS1515H3I \***

WASHER

\*\*

12/07/11

Location

Loc Qty

Loc Code

FG

40

102472

40

ST277

106

118686

3

119438

1

120360

11

121243

2

121556

89

D2741

Manufactured

No

250

Each

20.0000

1

1

**\*D2741\***

Blade, 350 Skidtube

\*\*

82135 JB

Location

Loc Qty

Loc Code

ST

-10

ST466

30

71856

1

79516

19

D3532-1

Manufactured

No

250

Each

7.0000

2

2

**\*D3532-1\***

Spacer

\*\*

83319 JB 12/07/24

Location

Loc Qty

Loc Code

ST053

7

82041

7

June-04-12 1:26:13 PM

Shop Packet Print

Page 14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

# GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:
  - ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
  - POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
  - BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ( $\phi 0.297$ ) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
  - MINIMUM YIELD TENSILE STRENGTH = 35 KSI
  - MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
- POWDER COATING WITH MEK DEGREASER
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

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WORK ORDER

NO. 85139 MLJ

12/06/04

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F	INCORPORATE DSI 9413, QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/-3 REPLACES D3535-13/-35 (ZN C8-1); D3794-1/-3 REPLACES D3536-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL); WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES, ADD RUBBER GASKETS, CHANGE INSERTS, ADD D3631-1, REMOVE QTY (38) NAS1515H3L, REMOVE QTY (10) NAS1515H8L, REMOVE D2741, QTY (2) AN960C816, REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS, INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4, INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV	DESCRIPTION	BY	DATE
DESIGN	PA		
DRAWN	PA		
CHECKED	PA		
MFG. APPR.	PA		
APPROVED	PA		
DE APPR.	PA		
DATE	08.07.16		

DART AEROSPACE USA, INC.  
PORT HADLOCK, WA

DESIGN NO. REV. F  
D2750 SHEET 1 OF 11  
TITLE SCALE  
350 SKIDTUBE ASSEMBLY NTS

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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

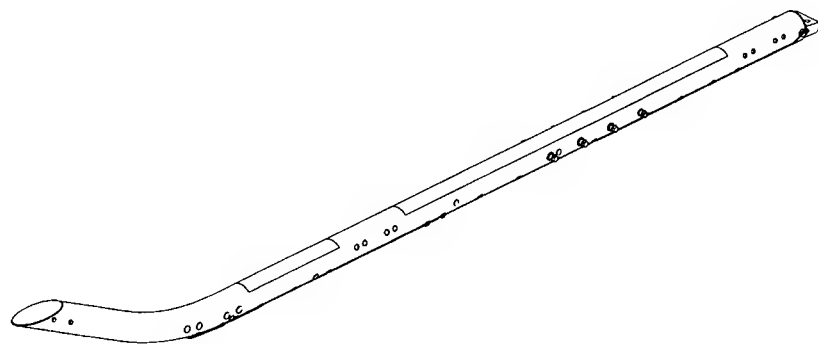
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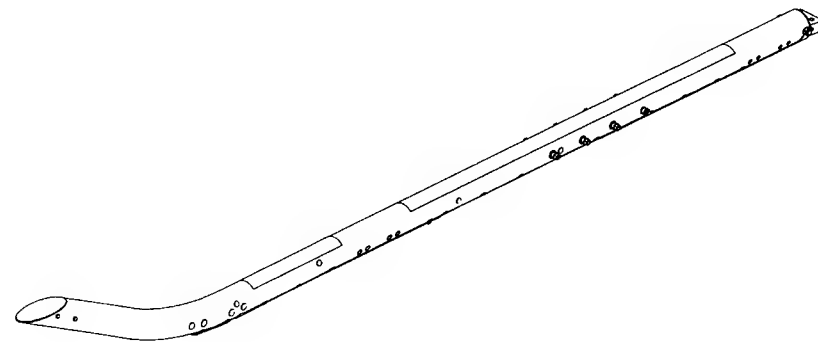
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

85139



D2750-041 350 SKIDTUBE ASSEMBLY, LH



D2750-042 350 SKIDTUBE ASSEMBLY, RH

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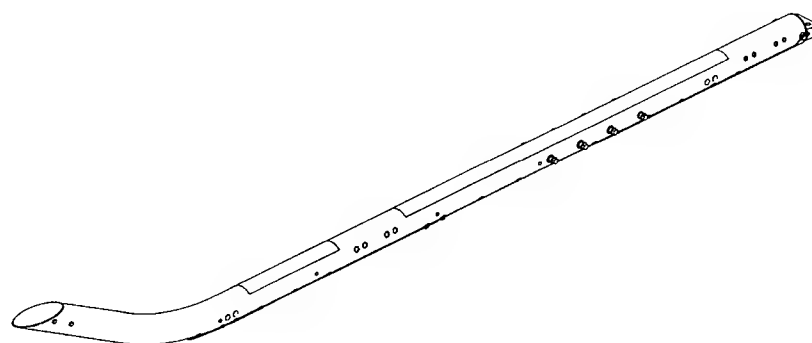
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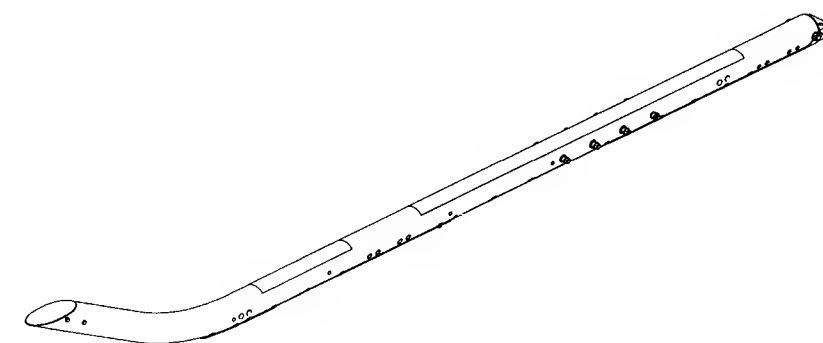
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

85739



D2750-043 350 SKIDTUBE ASSEMBLY, LH



D2750-044 350 SKIDTUBE ASSEMBLY, RH

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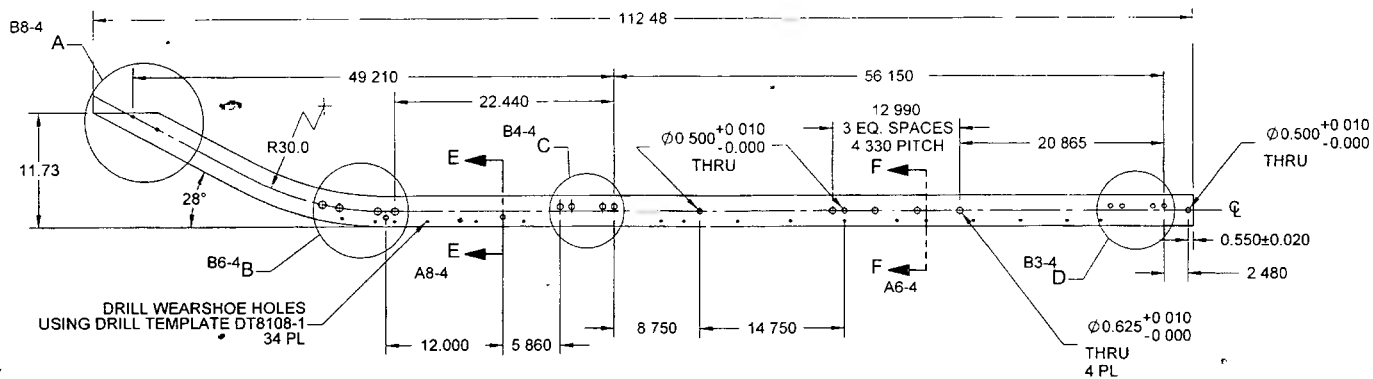
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng/ Prod Mgr	Approval QC Inspector

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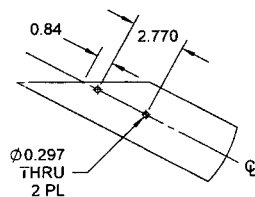
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

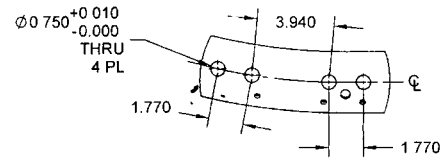
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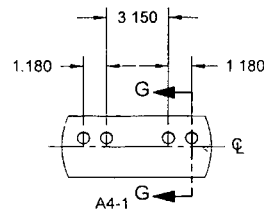
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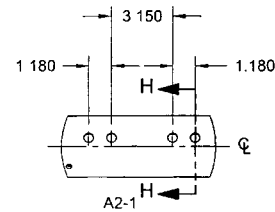
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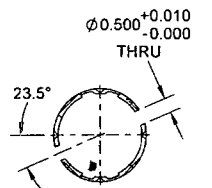
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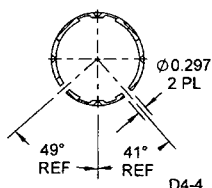
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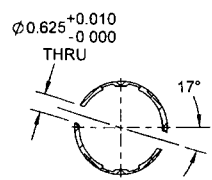
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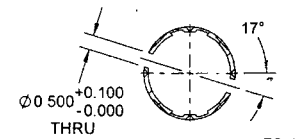
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SCALE 3X, 2 PL



**SECTION F-F**  
SCALE 3X, 17 PL



**SECTION G-G**  
SCALE 3X, 4 PL



**SECTION H-H**  
SCALE 3X, 4 PL

DESIGN		DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
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MFG. APPR.		D2750	SHEET 4 OF 11
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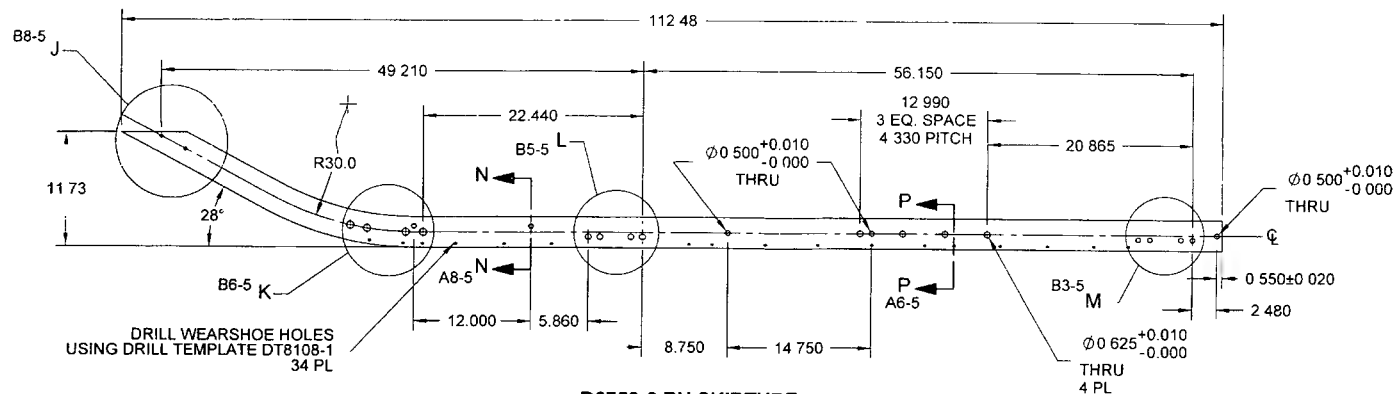
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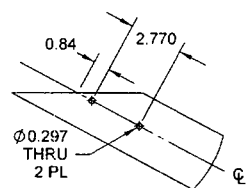
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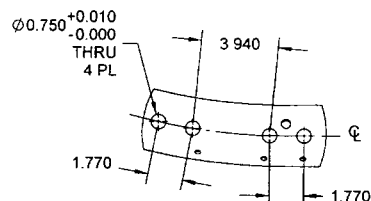




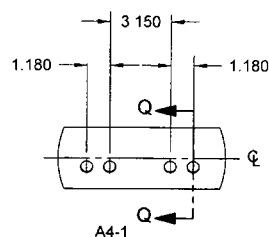
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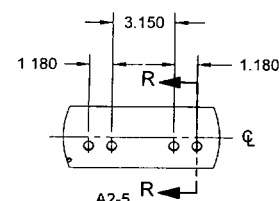
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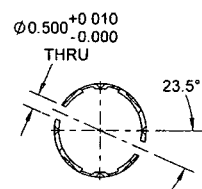
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SCALE 2X



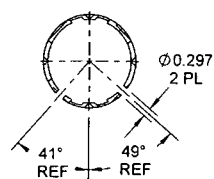
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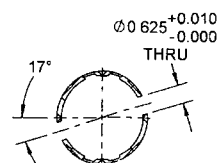
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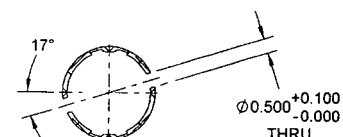
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SCALE 3X, 2 PL



C4-5  
**SECTION P-P**  
SCALE 3X, 17 PL



B5-5  
**SECTION Q-Q**  
SCALE 3X, 4 PL



B3-5  
**SECTION R-R**  
SCALE 3X, 4 PL

DESIGN	
DRAWN	PEL
CHECKED	
MFG. APPR.	
APPROVED	
DE APPR.	
DATE	08.07.16

<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
DRAWING NO <b>D2750</b>	REV. F SHEET 5 OF 11
TITLE <b>350 SKIDTUBE ASSEMBLY</b>	SCALE NTS
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

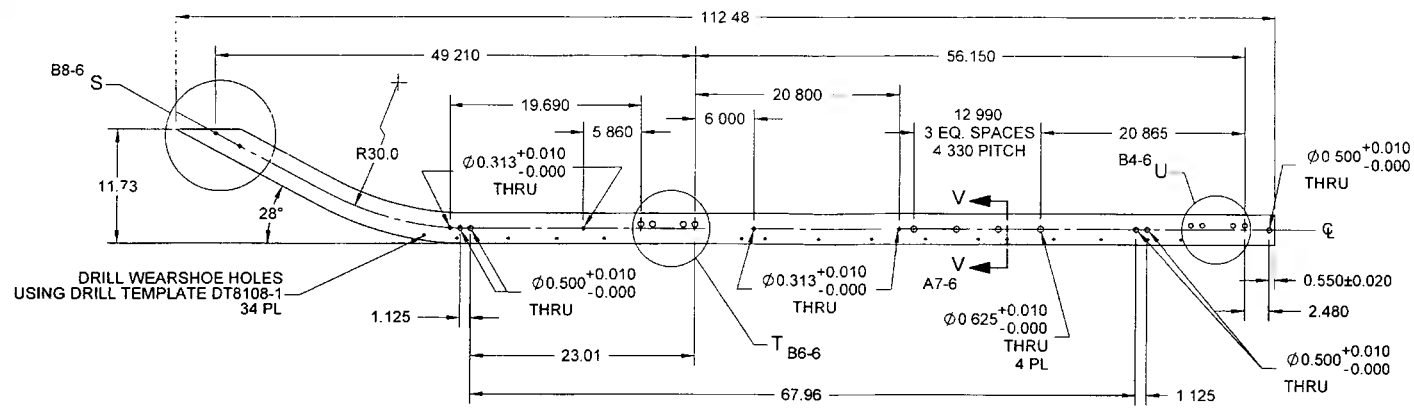
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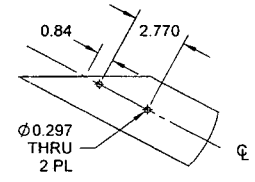
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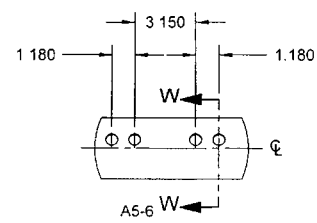
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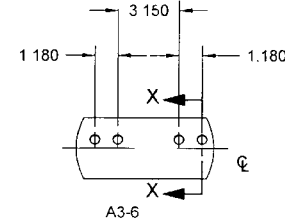
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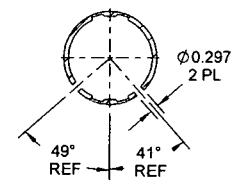
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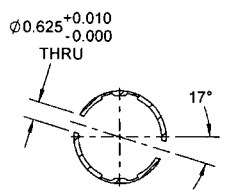
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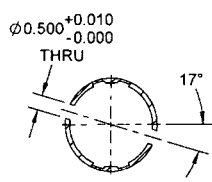
**DETAIL U**  
SCALE 2X  
D3-6



**SECTION V-V**  
SCALE 3X, 17 PL  
C4-6



**SECTION W-W**  
SCALE 3X, 4 PL  
B6-6



**SECTION X-X**  
SCALE 3X, 4 PL  
B4-6

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08-07-16

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DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR		D2750	SHEET 6 OF 11
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DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
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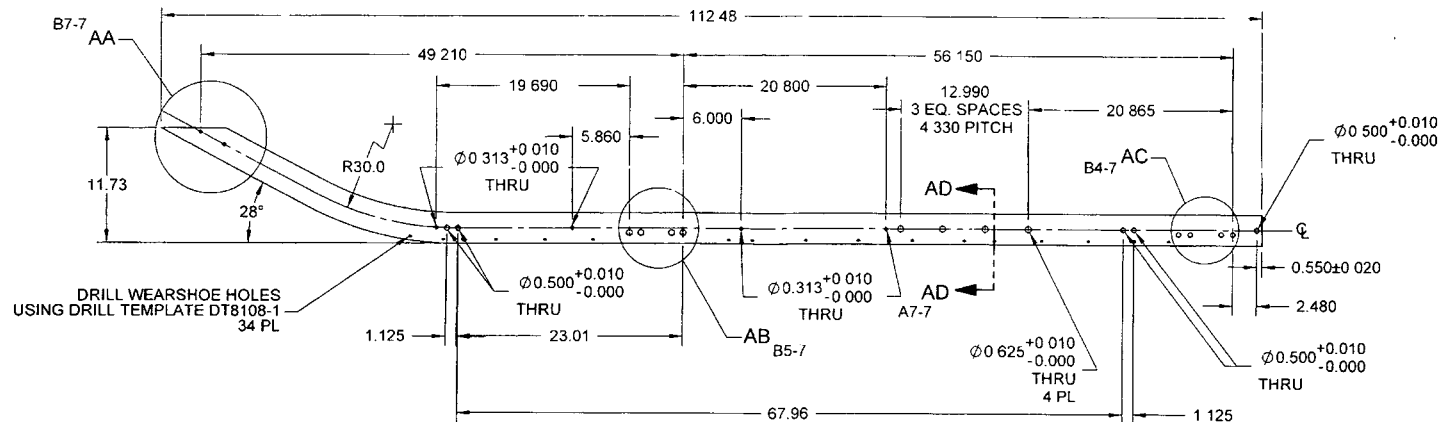
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

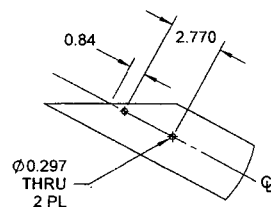
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

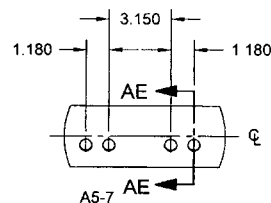
**NOTE:** Date & initial all entries



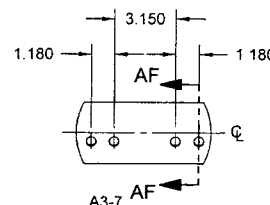
### D2750-4 RH SKIDTUBE



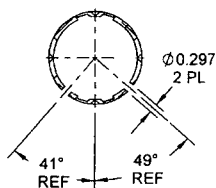
**DETAIL AA**  
SCALE 2X



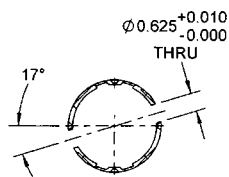
**DETAIL AB**  
SCALE 2X



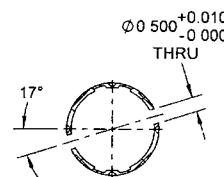
**DETAIL AC**  
SCALE 2X



**SECTION AD-AD**  
SCALE 3X, 17 PL



**SECTION AE-AE**  
SCALE 3X, 4 PL



**SECTION AF-AF**  
SCALE 3X, 4 PL

**RELEASED**  
06-9-2016

DESIGN		<b>DART AEROSPACE USA, INC.</b>	
DRAWN	<i>PEH</i>	PORT HADLOCK, WA	
CHECKED	<i>PEH</i>	DRAWING NO.	REV. F
MFG APPR.	<i>DA</i>	D2750	SHEET 7 OF 11
APPROVED	<i>DA</i>	TITLE	SCALE
DE APPR.	<i>DA</i>	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.	
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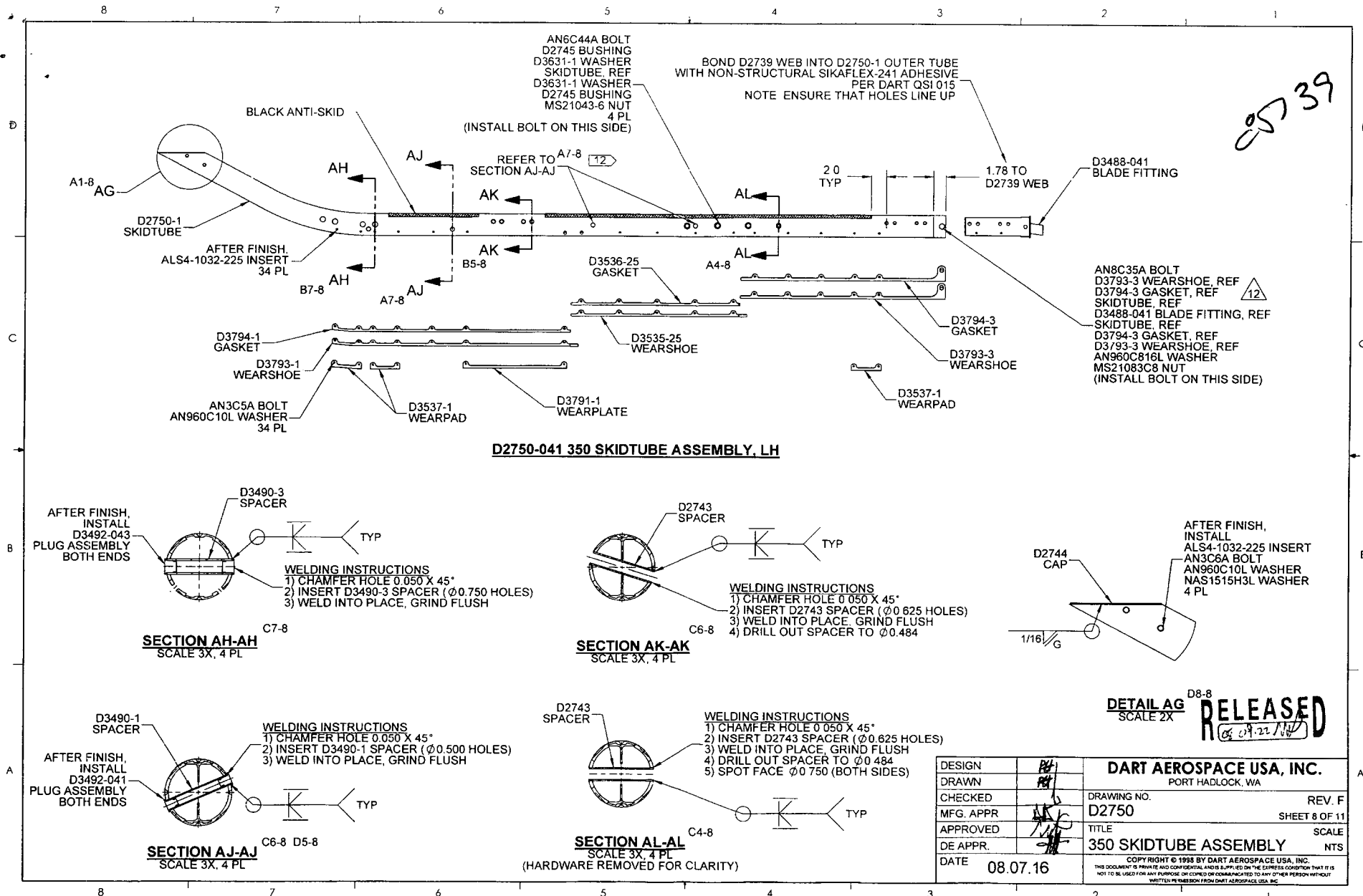
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



A1-10  
AS

BLACK ANTI-SKID  
REFER TO  
SECTION AW-AW

AN6C44A BOLT  
D2745 BUSHING  
D3631-1 WASHER  
SKIDTUBE, REF  
D3631-1 WASHER  
D2745 BUSHING  
MS21043-6 NUT  
4 PL  
(INSTALL BOLT ON THIS SIDE)

BOND D2739 WEB INTO D2750-3 OUTER TUBE  
WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE  
PER DART QSI 015  
NOTE ENSURE THAT HOLES LINE UP

D3488-041  
BLADE FITTING

QSI 35

D2750-3  
SKIDTUBE

AFTER FINISH,  
ALS4-1032-225 INSERT  
34 PL

REFER TO  
SECTION AU-AU

D3794-1  
GASKET

D3793-1  
WEARSHOE

AN3C5A BOLT  
AN960C10L WASHER  
34 PL

D3537-1  
WEARPAD

D3791-1  
WEARPLATE

D3536-25  
GASKET

D3535-25  
WEARSHOE

D3794-3  
GASKET

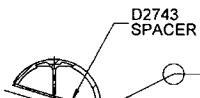
D3793-3  
WEARSHOE

D3537-1  
WEARPAD

AN8C35A BOLT  
D3793-3 WEARSHOE, REF  
D3794-3 GASKET, REF  
D3488-041 BLADE FITTING, REF  
SKIDTUBE, REF  
D3794-3 GASKET, REF  
D3793-3 WEARSHOE, REF  
AN960C816L WASHER  
MS21083C8 NUT  
(INSTALL BOLT ON THIS SIDE)

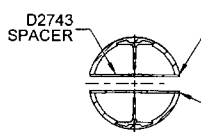
12

# **D2750-043 350 SKIDTUBE ASSEMBLY, LH**



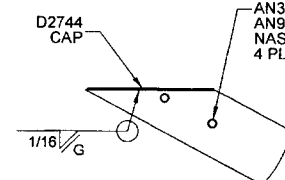
WELDING INSTRUCTIONS  
1) CHAMFER HOLE 0.050 X 45°  
2) INSERT D2743 SPACER (Ø 0.625 HOLES)  
3) WELD INTO PLACE, GRIND FLUSH  
4) DRILL OUT SPACER TO Ø 0.484

**SECTION AT-AT**  
SCALE 3X, 4 PL



WELDING INSTRUCTIONS  
1) CHAMFER HOLE 0.050 X 45°  
2) INSERT D2743 SPACER (Ø 0.625 HOLES)  
3) WELD INTO PLACE, GRIND FLUSH  
4) DRILL OUT SPACER TO Ø 0.484  
5) SPOT FACE Ø 0.750 (BOTH SIDES)

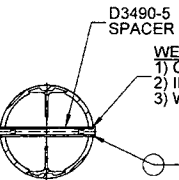
**SECTION AV-AV**  
SCALE 3X, 4 PL  
(HARDWARE REMOVED FOR CLARITY)



AFTER FINISH,  
INSTALL  
ALS4-1032-225 INSERT  
AN3C6A BOLT  
AN960C10L WASHER  
NAS1515H3L WASHER  
4 PL

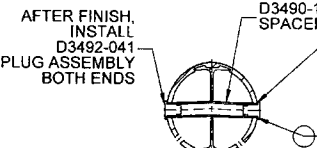
**DETAIL AS**  
SCALE 2X

RELEASED  
2015-07-22



WELDING INSTRUCTIONS  
1) CHAMFER HOLE 0.050 X 45°  
2) INSERT D3490-5 SPACER (Ø 0.313 HOLES)  
3) WELD INTO PLACE, GRIND FLUSH

**SECTION AU-AU**  
SCALE 3X, 4 PL



WELDING INSTRUCTIONS  
1) CHAMFER HOLE 0.050 X 45°  
2) INSERT D3490-1 SPACER (Ø 0.500 HOLES)  
3) WELD INTO PLACE, GRIND FLUSH

**SECTION AW-AW**  
SCALE 3X, 4 PL

DESIGN	AW	DART AEROSPACE USA, INC.	
DRAWN	AW	PORT HADLOCK, WA	
CHECKED	AW	DRAWING NO	REV. F
MFG APPR.	AW	D2750	SHEET 10 OF 11
APPROVED	AW	TITLE	SCALE
DE APPR	AW	350 SKIDTUBE ASSEMBLY	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

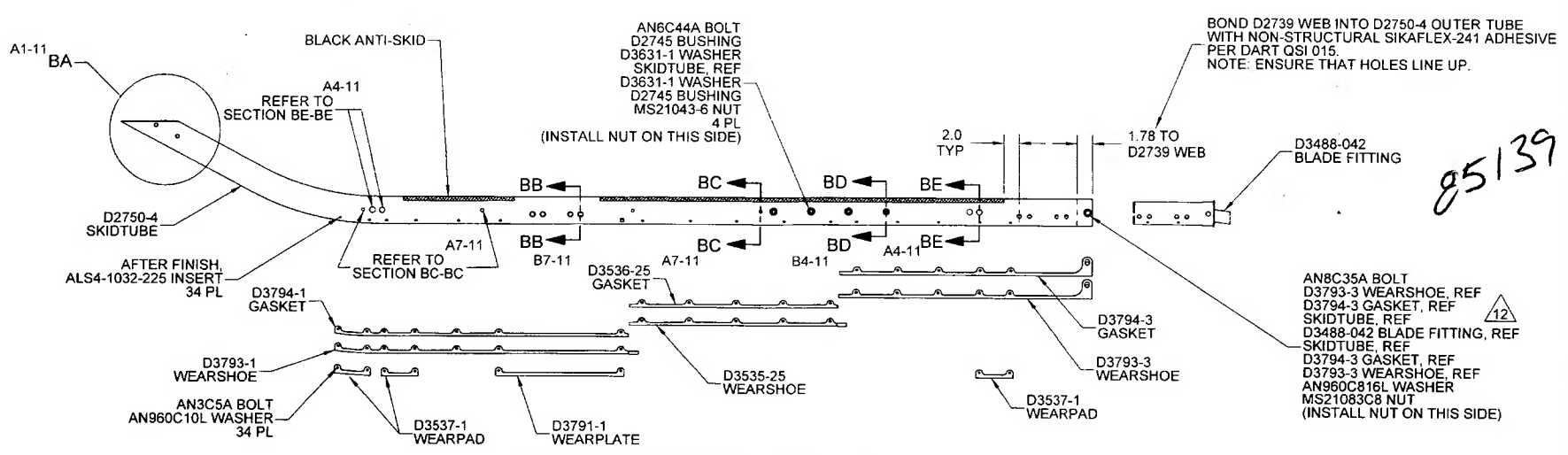
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

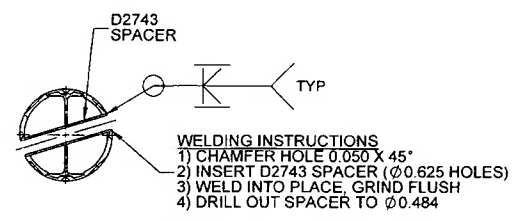
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

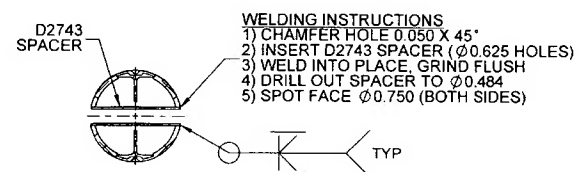
8 7 6 5 4 3 2 1



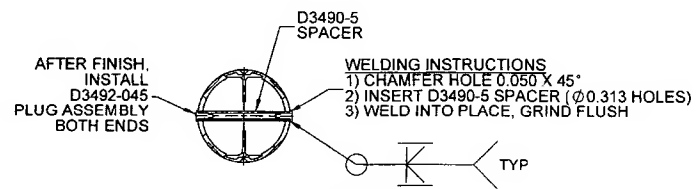
**D2750-044 350 SKIDTUBE ASSEMBLY, RH**



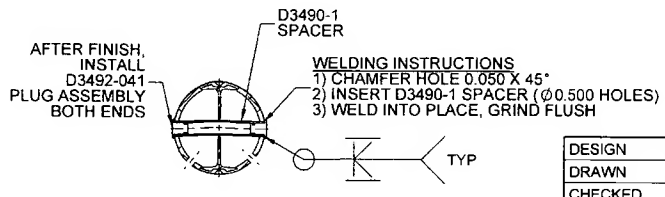
**SECTION BB-BB**  
SCALE 3X, 4 PL



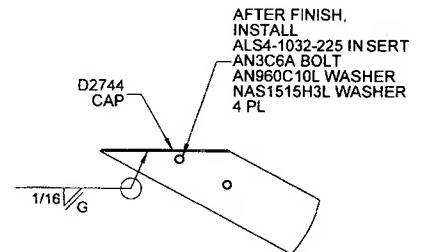
**SECTION BD-BD**  
SCALE 3X, 4 PL  
(HARDWARE REMOVED FOR CLARITY)



**SECTION BC-BC**  
SCALE 3X, 4 PL



**SECTION BE-BE**  
SCALE 3X, 4 PL



**DETAIL BA**  
SCALE 2X

DESIGN		<b>DART AEROSPACE USA, INC.</b>	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2750	SHEET 11 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 294

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Berclay Elliott  
Job number: 83800  
Part number: A350-636-012  
Description: Skid tube  
Welding Process: Tig ☒ Mig ☐  
Base material: Alum  
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual:

pass ☒ fail ☐

Penetration:

pass ☒ fail ☐

UNACCEPTABLE

Cracks:

pass ☒ fail ☐

Undercut:

pass ☒ fail ☐

Pin holes:

pass ☒ fail ☐

Overlap (cold lap)

pass ☒ fail ☐

Porosity (surface):

pass ☒ fail ☐

Coloration:

pass ☒ fail ☐

Qualifier David Anna

Date of Test Coupon 12.05.09

Welder Berclay Elliott

Date of Test Coupon 12.05.09

The above named individual is qualified in accordance with AWS D17.1.2001 to weld